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IS: 11899 - 1986

Indian Standard SPECIFICATION FOR FLYERS FOR JUTE SPINNING FRAMES

UDC 677.052.935

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002

Gr 2 May 1987

AMENDMENT NO. 1 OCTOBER 1997 TO

IS 11899: 1986 SPECIFICATION FOR FLYERS FOR JUTE SPINNING FRAMES

(Page 4, clause 3.2.1) — Substitute 'IS 1586 : 1988*' for 'IS : 1586 - 1968*'.

(Page 4, clause 5.1) — Substitute the following for the existing clause:

'5.1 Lot — All the flyers of the same size delivered to a buyer against one despatch note shall constitute a lot.'

(Page 4, foot-note) — Substitute the following for the existing matter:

"Method for Rockwell hardness test for metallic material (Scales A-B-C-D-E-F-G-H-K) (second revision)."

(Page 5, clause 6.1) — Insert 'and damage during transit' at the end of the sentence.

(TX 11)

Indian Standard

SPECIFICATION FOR FLYERS FOR JUTE SPINNING FRAMES

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Indian Standard

SPECIFICATION FOR FLYERS FOR JUTE SPINNING FRAMES

O. FOREWORD

- 0.1 This Indian Standard was adopted by the Indian Standards Institution on 5 December 1986, after the draft finalized by the Jute Mill Accessories and Jute Machinery Spare Parts Sectional Committee had been approved by the Textile Division Council.
- 0.2 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS: 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes requirements for flyers used in spinning frame in jute mill.

2. MATERIAL USED IN MANUFACTURE

2.1 Flyers shall be manufactured from steel conforming to designation 50Crl as per schedule IV of IS: 1570-1961†.

3. REQUIREMENTS

3.1 Dimensions — The dimensions of the flyer shall be agreed to between the manufacturer and the purchaser. However, the dimensions declared by the manufacturer shall be subject to the following tolerances:

Length from socket end to centre	± 0.80
of eye, mm	
Socket length, mm	± 0·80
Socket diameter, mm	\pm 0.40
Gap at leg, mm	± 0·80

^{*}Rules for rounding off numerical values (revised).

[†]Schedules for wrought steels for general engineering purposes.

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- 3.2 Hardness Body of flyer shall have hardness between 35 to 45 HRC and tail of flyer shall have hardness between 50 to 55 HRC.
- 3.2.1 Hardness shall be determined as per method prescribed in IS: 1586-1968*.
- 3.3 Flyers shall be dynamically balanced and amplitude shall be between 3 to 5 microns at the various speeds the flyers are tested.

4. MARKING

- **4.1** Each flyer shall be legibly marked with the manufacturer's name or trade mark.
- **4.1.1** Certification Marking The flyer may also be marked with the Standard Mark.

Note — The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

5. SAMPLING AND CRITERIA FOR CONFORMITY

- 5.1 Lot In any consignment, all the flyers for jute spinning frames shall constitute a lot.
- 5.2 Samples shall be tested for each lot for ascertaining the conformity of the material to the requirements of this specification.
- 5.3 The number of flyers for jute spinning frames to be chosen from the lot shall depend upon the size of the lot and shall be in accordance with Table 1.

TABLE 1 NUMBER OF FLYERS FOR JUTE SPINNING FRAMES TO BE SELECTED				
Lot Size	Sample Size	Acceptance Number	SUB-SAMPLE SIZE	Acceptance Number for Sub-Sample
(1)	(2)	(3)	(4)	(5)
Up to 50	3	0	1	0
51 to 100	5	0	2	0
101 to 150	8	1	3	0
151 to 300	13	2	5	0
301 and abo	ve 20	3	5	0

^{*}Method of Rockwell hardness test (B and C scales) for steel (first revision).

5.4 The flyers for jute spinning frames shall be selected from the lot at random and in order to ensure the randomness of selection, the procedure given in IS: 4905-1968* shall be followed.

5.5 Number of Tests

- 5.5.1 Tests for dimensional requirements shall be conducted on the sample selected as given in col 2 of Table 1.
- 5.5.2 Tests for all other requirements given in this specification shall be conducted on sub-sample.

5.6 Criteria for Conformity

- 5.6.1 If any flyer for jute spinning frame fails in any of the dimensional requirements given in this standard, it shall be declared as defective. The lot shall be declared as conforming to the requirements of dimensional characteristics if the number of defective flyers for jute spinning frames is less than or equal to the corresponding acceptance number given in col 3 of Table 1.
- 5.6.2 For the other requirements tested on the sub-sample, any flyer for jute spinning frame shall be declared as defective if it fails to meet any of the requirements other than dimensional requirements. The lot shall be declared as conforming to the requirements if the number of defective flyers for jute spinning frames is less than or equal to the corresponding acceptance number for sub-sample given in col 5 of Table 1.
- 5.6.3 The lot shall be declared as conforming to the requirements of this standard, if 5.6.1 and 5.6.2 are satisfied.

6. PACKING

6.1 Flyers shall be packed to ensure complete protection from rust.

^{*}Methods for random sampling.

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

QUANTITY	Unit	Symbol
Length	metre	m
Mass	kilogram	kg
Time	second	8
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	c d
Amount of substance	mole	mol

Supplementary Units

QUANTITY	Unit		Symbol	
Plane angle	radian		rad	
Solid angle	steradian		ST	

Derived Units

QUANTITY	Unit	Symbol	DEFINITION
Force	newton	N	$1 N = 1 kg.m/s^{3}$
Energy	joule	J,	1 J = 1 N.m
Power	watt	W .	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	t esla	T	$1 T = 1 \text{ Wb/m}^{\bullet}$
Frequency	hertz	Hz	$1 \text{ Hz} = 1 \text{ c/s (s}^{-1})$
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	$\cdot \mathbf{v}$	1 V = 1 W/A
Pressure, stress	pascal	Pa	$1 Pa = 1 N/m^{2}$

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